

AMENDMENTS TO THE CLAIMS

1.-18. (Cancelled)

19. (Currently Amended) A method for creating a database comprising fingerprint/landmark pairs associated with media samples, the method comprising the steps of:

extracting a plurality of characteristics from a media sample;
transferring said plurality of characteristics to a server coupled with a database;
~~processing said characteristics into~~ deriving fingerprint/landmark pairs from said characteristics; and
storing said fingerprint/landmark pairs in said database.

20. (Previously presented) The method of claim 19 further comprising the step of:
simultaneously transferring metadata used to identify said media sample when
transferring said plurality of characteristics.

21 (Previously presented) The method of claim 20 further comprising the step of:
associating said metadata used to identify said media sample with said stored
fingerprint/landmark pairs.

22. (Previously presented) The method of claim 19 wherein said processing is
executed by an updateable or replaceable algorithm.

23. (Previously presented) The method of claim 19 further comprising the step of:
prior to extracting said characteristics, determining whether or not said database
already contains landmark/fingerprint pairs associated with said media sample.

24. (Previously presented) The method of claim 19 where said media comprises a
compact disk or digital video disk.

25. (Previously presented) The method of claim 19 where said media comprises a
streaming media.

26. (Previously presented) The method of claim 19 where said media comprises a
file stored on a user's computer.

27. (Previously presented) The method of claim 19 wherein said processing said characteristics into fingerprint/landmark pairs comprises the steps of:

compiling a list of distinctive and reproducible points in time at which fingerprints should be calculated; and

calculating one or more fingerprints at one or more said distinctive and reproducible points in time.

28. (Previously presented) The method of claim 19 wherein said characteristics are a member of the group comprising:

a frequency value of the strongest spectral peak in proximity to a landmark,
a plurality of frequency values of the strongest spectral peaks in proximity to a landmark,

LPC coefficients,

Cepstral Coefficients,

a single value that is a hashed function of multiple characteristics.

29. (Previously presented) The method of claim 27 wherein said compiling a list of distinctive and reproducible points in time at which fingerprints should be calculated comprises calculating the instantaneous power at said points in time and selecting a power maxima within those points in time.

30. (Previously presented) The method of claim 27 wherein said compiling a list of distinctive and reproducible points in time at which fingerprints should be calculated comprises calculating the absolute value of one or more spectral components at said points in time and finding the local maxima of said absolute value.

31. (Previously presented) The method of claim 19 wherein said extracting is accomplished using a data archiving service.

32. (Previously presented) The method of claim 19 wherein said extracted characteristics are associated with metadata from a media file.

33. (Previously presented) The method of claim 32 wherein said extracted characteristics are used to look up said metadata in a metadata database.

34. (Previously presented) The method of claim 19 further comprising:
creating an index of fingerprint/landmark pairs associated with said media samples
and sorting said index according to fingerprint.

35. (Currently Amended) An apparatus comprising a database of
fingerprint/landmark pairs associated with media samples, said database comprising:
a plurality of stored fingerprint/landmark pairs, where said fingerprint/landmark pairs
are constructed by:
extracting a plurality of characteristics from a media sample;
transferring said plurality of characteristics to a server coupled with a database;
~~processing said characteristics into~~ deriving fingerprint/landmark pairs from said
characteristics;

36. (Previously presented) The apparatus of claim 35 where said database further
comprises:
metadata used to identify said media sample associated with said stored
fingerprint/landmark pairs.

37. (Previously presented) The apparatus of claim 35 wherein said processing is
executed by an updateable or replaceable algorithm.

38. (Previously presented) The apparatus of claim 35 where said
fingerprint/landmark pairs are further constructed by:
prior to extracting said characteristics, determining whether or not said database
already contains landmark/fingerprint pairs associated with said media sample.

39. (Previously presented) The apparatus of claim 35 where said media comprises
a compact disk or digital video disk.

40. (Previously presented) The apparatus of claim 35 where said media comprises
a streaming media.

41. (Previously presented) The apparatus of claim 35 where said media comprises
a file stored on a user's computer.

42. (Previously presented) The apparatus of claim 35 wherein said processing said characteristics into fingerprint/landmark pairs comprises the steps of:

compiling a list of distinctive and reproducible points in time at which fingerprints should be calculated; and

calculating one or more fingerprints at one or more said distinctive and reproducible points in time.

43. (Previously presented) The apparatus of claim 35 wherein said characteristics are a member of the group comprising:

a frequency value of the strongest spectral peak in proximity to a landmark,
a plurality of frequency values of the strongest spectral peaks in proximity to a landmark,

LPC coefficients,

Cepstral Coefficients,

a single value that is a hashed function of multiple characteristics.

44. (Previously presented) The apparatus of claim 42 wherein said compiling a list of distinctive and reproducible points in time at which fingerprints should be calculated comprises calculating the instantaneous power at said points in time and selecting a power maxima within those points in time.

45. (Previously presented) The apparatus of claim 42 wherein said compiling a list of distinctive and reproducible points in time at which fingerprints should be calculated comprises calculating the absolute value of one or more spectral components at said points in time and finding the local maxima of said absolute value.

46. (Previously presented) The apparatus of claim 35 wherein said extracting is accomplished using a data archiving service.

47. (Previously presented) The apparatus of claim 35 wherein said extracted characteristics are associated with metadata from a media file.

48. (Previously presented) The apparatus of claim 47 wherein said extracted characteristics are used to look up said metadata in a metadata database.

49. (Previously presented) The apparatus of claim 35 where said database further comprises:

an index of fingerprint/landmark pairs associated with said media samples, said index sorted according to fingerprint.

50. (Currently Amended) A method of creating a database of fingerprint/landmark pairs associated with an music sample comprising the steps of:

playing a music sample to be identified;
determining that the music sample is missing from said database;
extracting one or more of characteristics from the music sample, where said characteristics are common to distinctive and reproducible points in time within said music sample;
transferring said plurality of characteristics to a server coupled with a database;
~~processing, using an updateable or replaceable algorithm, said characteristics into~~
deriving fingerprint/landmark pairs from said characteristics using an updateable or replaceable algorithm;
storing said fingerprint/landmark pairs in said database; and
indexing said fingerprint/landmark pairs associated with said media samples, according to fingerprint.

51. (Currently Amended) The method of claim 50 further comprising, when fingerprint/landmark pairs associated with said music sample ~~the music sample~~ are already contained in the database;

determining whether or not said characteristics were processed with a most recent version of said updateable or replaceable algorithm;

updating said version of said updateable or replaceable algorithm, when it is determined that said characteristics were processed with an old version, and processing said characteristics with said most recent version of said algorithm.